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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Stefan Bengtsson

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09/06/2006

David G. Beck
Bingham McCutchen LLP
18th Floor
Three Embarcadero Center
San Francisco, CA 94111

EXAMINER

WALLING, MEAGAN S

ART UNIT

PAPER NUMBER

2863

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/799,899

Applicant(s)

BENGTSOON, STEFAN

Examiner

Meagan S. Walling

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,19,21-23,25-30,32-34,40-43,45 and 46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 is/are allowed.
- 6) ☒ Claim(s) 1,2,19,22,23,26,28-30,32,34-36,38 and 41-43 is/are rejected.
- 7) ☒ Claim(s) 25,27,33,37,40,45 and 46 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 2, 19, 23, 26, 28, 30, 32, 34-36, 38, and 41-43 are rejected under 35 U.S.C. 103(a) as being anticipated by Akita (US 2003/0065276).

Regarding claim 1, Akita teaches a plurality of speakers (4L, 4R, 7); a microphone (8); and an audiometer (1) coupled to the microphone (8) and the plurality of speakers (4L, 4R, 7), the audiometer configured for performing auditory diagnostic tests (par 1), for emitting sound through each of the plurality of speakers (par 7), and for calibrating individuals of the plurality of speakers based on the emitted sound received by the microphone (pars 8 and 12) where said audiometer is configured for calibrating individuals of the plurality of speakers to compensate for an environmental effect (par 2).

Regarding claim 2, Akita teaches at least one test probe (17); a diagnostic subsystem coupled to said at least one test probe, the diagnostic subsystem adapted to implement at least one auditory diagnostic test (par 25); input means adapted to accept commands from a user (3, 21); a display adapted to display results from said at least one auditory diagnostic test (9); and at least one processor coupled to said diagnostic subsystem and to said input means (3).

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Regarding claim 23, Akita teaches that the audiometer is configured for calibrating the plurality of speakers by obtaining proper individual speaker level settings and/or time delays (par. 37, 41).

Regarding claim 26, Akita teaches arranging a plurality of speakers within a testing room remote from an intended listener/patient position (4L, 4R); coupling the plurality of speakers to an audiometer (1); coupling a microphone to the audiometer (8), wherein the audiometer is configured for calibration individuals of speakers to compensate for an environmental effect (par 2); emitting sound through each of the plurality of speakers (par 7); receiving the sound with the microphone (par 8); and calibrating individuals of the arranged plurality of speakers based on the received sound (par. 12).

Regarding claim 28, Akita teaches that the plurality of speakers is automatically calibrated by the audiometer (par 41).

Regarding claim 30, Akita teaches that speaker calibrating comprises obtaining proper individual speaker level settings and/or time delays (par 37, 41).

Regarding claim 32, Akita teaches positioning the microphone at the intended listener/patient position (par 36).

Regarding claim 34, Akita teaches operating the audiometer to perform auditory diagnostic tests (par 1).

Regarding claim 35, Akita teaches a testing room (par 2); a plurality of speakers arranged within the testing room remote from an intended listener/patient position (4L, 4R); a microphone located within the testing room (8); and an audiometer (1) coupled to the microphone (8) and the plurality of speakers (4L, 4R), the audiometer configured for

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performing auditory diagnostic tests (par 1), for emitting sound through each of the plurality of speakers and for calibrating individuals of the plurality of speakers based on the emitted sound received by the microphone (par 7, 8, 12); wherein the audiometer is configured for calibrating individuals of the plurality of speakers to compensate for an environmental effect (par 2).

Regarding claim 36, Akita teaches teaches at least one test probe (17); a diagnostic subsystem coupled to said at least one test probe, the diagnostic subsystem adapted to implement at least one auditory diagnostic test (par 25); input means adapted to accept commands from a user (3, 21); a display adapted to display results from said at least one auditory diagnostic test (9); and at least one processor coupled to said diagnostic subsystem and to said input means (3).

Regarding claim 38, Akita teaches that the audiometer is configured for calibrating the plurality of speakers by obtaining proper individual speaker level settings and/or time delays (par 37, 41).

Regarding claim 41, Akita teaches a plurality of speakers (4L, 4R); an audiometer coupled to the plurality of speakers, the audiometer configured for performing auditory diagnostic tests (par 1); and a test probe coupled to the audiometer, the probe having a memory for storing probe calibration and/or probe configuration information (par 29); wherein the audiometer is configured for calibrating individuals of the plurality of speakers to compensate for an environmental effect (par 2).

Regarding claim 42, Akita teaches that the audiometer is configured for calibrating the plurality of speakers (par 2 and 35).

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Regarding claim 43, Akita teaches a diagnostic subsystem coupled to the probe, the diagnostic subsystem adapted to implement at least one auditory diagnostic test (par 25); input means adapted to accept commands from a user (3, 21); a display adapted to display results from said at least one auditory diagnostic test (9); and at least one processor coupled to said diagnostic subsystem and to said input means (3).

Regarding claims 1, 19, 26, 35, and 41, Akita teaches two speakers, not at least three (current claims 1, 26, 35, and 41) or at least five (current claim 19).

It would have been obvious at the time of the invention to use three or five speakers instead of two. In *In re Harza* 219 F.2d 449, 104 USPQ 400 (CCPA 1955), the court held that a mere duplication of parts has no patentable significance unless a new and unexpected result is produced. In this case, the same result (the calibration of the audiometer) is produced. See MPEP 2144.04.

2. Claims 22 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akita in view of Lavoie et al. (US 2001/0038702).

Akita teaches all of the limitations of claim 22 while not explicitly teaching that the environmental differences comprise differences in environmental acoustics and/or speaker placement. As noted above, paragraph 2 discusses the need to calibrate the audiometer when the testing environment is changed and it is implied that this is because different environments have different acoustics, this is not explicitly stated. Akita does not teach calibrating to make up for differences in speaker placement.

Akita teaches all of the limitations of claim 29 except the limitation that the plurality of speakers is calibrated to compensate for speaker misplacement.

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Regarding claims 22 and 29, Lavoie et al. teaches calibrating based on the position of the speakers (par 69).

It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Akita with the teachings of Lavoie et al. to calibrate based on different speaker placement. The motivation for making this combination is to get a more accurate test response because the placement of each speaker in a listening environment can cause a different acoustic impedance (Lavoie et al., par 69).

Allowable Subject Matter

3. Claims 25, 27, 33, 37, 40, 45, and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Please see previous offices action for reasons for allowance.

4. Claim 21 is allowed.

The following is an examiner's statement of reasons for allowance:

Please see previous office actions for reasons for allowance.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant argues that Akita fails to disclose an audiometer that is configured to calibrate speakers to compensate for an environmental effect and that Akita could not be used to simulate an environment effect because in real world situations, sound will come from directions other than left and right.

However, Akita specifically states in paragraph 2 that for audiometric testing, the test sound field must be “uncontaminated by extraneous sounds (those not produced by the audiometer)” and that this requirement “can be met by calibrating the audiometer.” Therefore, it is clear that calibrating the audiometer will compensate for an environment effect, in this case extraneous sounds.

Applicant continues to argue the benefit of using three speakers instead of two, however it is never stated in the specification that a minimum of three speakers must be used. Rather, in paragraph 7, it states that “(t)ypically five speakers are used, although both fewer and greater numbers of speakers can be used depending upon the desired sound field quality as well as the desired system complexity and cost.”

Therefore, Akita’s use of two speakers may not produce a sound field quality as high as the use of three or more speakers would, but a similar result would be achieved.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meagan S. Walling whose telephone number is (571) 272-

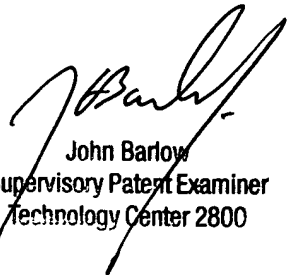
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2283. The examiner can normally be reached on Monday through Friday 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

msw



John Barlow
Supervisory Patent Examiner
Technology Center 2800